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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/768,741	02/02/2004	William B. Harvey	WH-03	4904
23593	7590	10/03/2005	EXAMINER	
ZITO TLP 26005 RIDGE ROAD SUITE 203 DAMASCUS, MD 20872			LOWEN, ALYSSA	
			ART UNIT	PAPER NUMBER
			3714	

DATE MAILED: 10/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/768,741

Applicant(s)

HARVEY, WILLIAM B.

Examiner

Alyssa M. Lowen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 June 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Priority***

1. Applicant's claim for the benefit of a prior-filed application under 35 U.S.C. 119(e) or under 35 U.S.C. 120, 121, or 365(c) is acknowledged. Applicant has complied with all conditions for receiving the benefit of an earlier filing date under 35 U.S.C. 120.

### ***Specification***

2. The disclosure is objected to because of the following informalities: The word "range" on the last line of page 1 is missing the letter "e". On the second to last line of paragraph 6 a period appears out of place and the word "aircraft" is misspelled. The letter "e" is missing from the word "be" on the first line of page 3 and from the word "side" on the second to last line of page 4. Regarding the last line of paragraph 17 and the first line of paragraph 19 a reference number of 5 is incorrectly given for the engine, the number should be 6. The propeller reference number on the last line of paragraph 17 also needs to be changed from 6 to 7. The wing reference number in paragraph 20 should be 2 not 22. The phrase "of two the front halves 36" in paragraph 22 makes the sentence unclear. Appropriate correction is required.

### ***Claim Objections***

3. It is preferred that claims take a form that includes an initial statement such as, "I or we claim," "The invention claimed is" or an equivalent. See MPEP 608.01(m). Correction is recommended.

### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The term "rising arc" is confusing since it is unclear what constitutes a rising arc.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over McDonald (3238664) in view of Atwood (2029214) and Lissaman (5035382). McDonald discloses a ready-to-fly unmanned airplane having an upper fuselage section (29) attached to a middle fuselage section (Fig. 3), where the middle fuselage section comprises a seat (11) for an engine (18) and a fuel tank (14) having a seat or bottom portion (16). A lower fuselage section (10) is formed integrally with the middle section (column 2 line 15). The aircraft also has a rear horizontal stabilizer or rudder (801) having upper and lower or top and bottom sections and a vertical stabilizer section (Fig. 8). The wings (803) are formed as a single unit where the mid-section of the wings attach to the upper and lower fuselage sections when clamped in a slot formed by the upper and lower fuselage sections (column 3 lines 15-19). McDonald discloses each and every structural element of the rear horizontal and vertical stabilizer sections but does not disclose that the parts

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are formed integrally with the fuselage sections. The claimed phrases, "formed integrally with the upper fuselage section" and "formed integrally with the middle fuselage section" are being treated as product by process limitations; that is, that the horizontal and vertical stabilizer sections are formed integrally with either the upper or middle fuselage sections. As set forth in MPEP 2113, product by process claims are not limited to the manipulations of the recited steps, only to the structure implied by the steps. Once a product appearing to be substantially the same or similar is found, a 35 USC 103 rejection may be made and the burden is shifted to applicant to show an unobvious difference. See MPEP 2113. Therefore, even though McDonald is silent as to how the vertical stabilizer is formed and discloses that the horizontal stabilizer is attached to the aircraft later, the product appears to be the same or similar as that claimed. The aircraft of McDonald discloses the basic inventive concept substantially as claimed, with the exception of the wing having an inner structural core with a geometrically celled structure between upper and lower wing sections, the wing forming a rising arc on the longitudinal axis as the wing extends away from the lower fuselage section and the aircraft being constructed of plastic. Atwood discloses a cellular or honeycomb geometrically celled structure between upper and lower sections of an airplane wing (Fig. 2) showing this feature to be old in the airplane wing art. It would have been obvious to one of ordinary skill in the art at the time of invention from the teaching of Atwood to modify the wings of McDonald to include the cellular structure in order to have a wing that is both light weight and durable (column 1 lines 4-6). Lissaman discloses a plastic airplane (column 4 lines 31-32) having a wing formed in a

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rising arc as the wing extends away from the fuselage (Fig. 1) showing this feature to be old in the aircraft art. It would have been obvious to one of ordinary skill in the art at the time of invention from the teaching of Lissaman to modify the device of McDonald to be made of plastic for durability and to curve the wing in order to increase stability.

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Garofalo (4203250) discloses a plastic aircraft with wings formed as a unit that are inserted through a slot in the fuselage. Babcock (2555670) discloses a plastic aircraft with upper, lower and middle fuselage sections.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alyssa M. Lowen whose telephone number is 571-272-2684. The examiner can normally be reached on M-F (8-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's acting supervisor, Chanda Harris can be reached on 571-272-4448. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AML

*Chanda L. Harris*  
**CHANDA L. HARRIS**  
**PRIMARY EXAMINER**